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# **Jackson Hole Fire/EMS Operations Manual**

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Title: Procedure Guidelines:

Multilumen Airway

King LTS-D

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# MULTILUMEN AIRWAY King LTS-D™ (Procedure Guidelines)

# SCOPE OF PRACTICE

All EMT-Intermediates and Paramedics shall operate within their authorized Scope of Practice as limited to those skills and medication approved for use by the Physician Medical Director and as approved and authorized by the Wyoming Board of Medicine

#### **SCOPE OF PRACTICE:**

EMT-Intermediate, Paramedic

#### **INDICATIONS:**

The King LTS-D is intended for airway management and to provide controlled or spontaneous ventilation. It is also suitable as a backup airway for failed endotracheal intubation attempts.

# **CONTRAINDICATIONS:**

- Responsive patients with an intact gag reflex
- Patients with known esophageal disease
- Patients who have ingested caustic substances

# PRECAUTIONS:

- The King LTS-D does not protect the airway from the effects of regurgitation and aspiration
- High airway pressures may divert gas either to the stomach or to the atmosphere
- Intubation of the trachea cannot be ruled out as a potential complication of the insertion of the King LTS-D
- After placement, perform standard checks for confirmation and utilize an appropriate carbon dioxide monitor (i.e. waveform capnography) as required by protocol
- Lubricate only the posterior surface of the King LTS-D to avoid blockage of the ventilation apertures or aspiration of the lubricant

# **INSERTION INSTRUCTIONS:**

- Select the correct King LTS-D size based on patient height
- Test cuff inflation by injecting the maximum recommended volume of air into the cuffs

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Remove all air from both cuffs prior to insertion

Apply a water based lubricant to the beveled distal tip and posterior aspect of the tube, taking care to avoid introduction of lubricant in or near the ventilatory openings

Ensure that gag reflex is not intact

- Position the head. The ideal position is the sniffing position, but angle and shortness of the tube also allows it to be inserted with head in a neutral position
- Hold the King LTS-D at the connector with dominant hand. With non-dominant hand, hold mouth open and apply chin lift
- With the King LTS-D rotated laterally 45-90° such that the blue orientation line is touching the corner of the mouth, introduce tip into mouth and advance behind base of tongue. Never force the tube into position
- As the tube passes under tongue, rotate tube back to midline (blue orientation line faces chin)
- Without exerting excessive force, advance King LTS-D until proximal opening of gastric access lumen is aligned with teeth or gums
- Inflate cuffs with minimum volume necessary to seal the airway at the peak ventilatory pressure employed (just seal volume)
- Attach BVM to the 15 mm connector of the King LTS-D. While gently bagging the patient to assess ventilation, simultaneously withdraw the airway until ventilation is easy and free flowing (large tidal volume with minimal airway pressure)
- Depth markings are provided at the proximal end which refer to the distance from the distal ventilatory opening.
- Confirm proper position by auscultation, chest movement, and verification of CO<sub>2</sub> by capnography

Readjust cuff inflation to 60 cm H<sub>2</sub>0 (just seal volume)

- Secure King LTS-D to patient using tape or other accepted means. A bite block can also be used
  if desired. DO NOT COVER THE PROXIMAL OPENING OF THE GASTRIC ASSESS
  LUMEN
- The gastric assess lumen allow the insertion of up to a 18 Fr diameter gastric tube into the esophagus and stomach. Lubricate gastric tube prior to insertion

# **COMPLICATIONS AND HAZARDS:**

- Failure to ensure adequate oxygenation and ventilation
- Failure to recognize tracheal intubation
- Vomiting and aspiration of patient with an intact gag reflex
- Hypoxia due to prolonged attempts
- Cervical spine fracture in patients with arthritis and poor cervical mobility
- Cervical cord damage in trauma patients with unrecognized spine injury

# PROPER SIZING OF THE KING LTS-D:

Size	Description	Connector Color	Gastric Tube Size	Inflation Volume
2	35-34 in (90 – 115 cm)	Green	na	25-35 mL
2.5	41-51 in (105 -130 cm)	Orange	na	30-40 mL
3	4-5 feet (122-155 cm) in height	Yellow	≤ 18 Fr	45-80 mL
4	5 – 6 feet (155-180 cm) in height	Red	≤ 18 Fr	60-80 mL
5	Greater than 6 feet (180 cm) in height	Purple	≤ 18 Fr	70-90 mL